

# Exterior point methods with adaptation of admissible set approximation for constrained optimization problems

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## Abstract

© 2016, Pleiades Publishing, Ltd. In this paper we consider one approach implemented for solving constrained optimization problems with a given accuracy based on the use of approximation of the admissible set. This approach is applicable to the sequential unconstrained minimization methods, but can be adapted to other optimization methods. At each iteration of the algorithm, designed on this approach, the admissible set of the problem is replaced by its approximation. As a result of the adaptation parameters of approximation in finitely many iterations used approximation becomes satisfactory that guarantees the given accuracy of solution for the initial optimization problem.

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## Keywords

adaptation parameters of approximation, given accuracy of optimization problem, satisfactory approximation of admissible set, Sequential unconstrained minimization methods